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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/029,772

12/21/2001

Huayan Wang

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30636 7590 04/07/2008

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EXAMINER

CHANKONG, DOHM

ART UNIT

PAPER NUMBER

2152

MAIL DATE

DELIVERY MODE

04/07/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/029,772	Applicant(s) WANG ET AL.	
	Examiner DOHM CHANKONG	Art Unit 2152	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 14 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3, 6-12 and 15-28 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 6-12, and 15-28 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

- 1> This action is in response to Applicant's amendment, filed 1.14.2008. Claims 1, 10, and 23 are amended, Claims 1-3, 6-12, and 15-28 are presented for further examination.
- 2> This is a final rejection.

Response to Arguments

- 3> Applicant's arguments with respect to claims 1-3, 6-12, and 15-28 have been considered but are moot in view of the new ground(s) of rejection necessitated by Applicant's amendment.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

- 4> Claims 1-3, 6, 7, 10-12, 15, and 23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Critelli, US 6,260,029 in view of Cantu et al, U.S Patent Publication No. 2001|0020228 ["Cantu"], in further view of Jensen, U.S. Patent No. 5,331,118.

5> As per claim 1, Critelli teaches a security envelope, comprising: a barcode in a two-dimensional symbology located on the security envelope, the barcode encoding (Fig 8, item 38):

a public component (shipping information, postal verification information, Col. 4, lines 10-15; Fig. 1, item 36; Fig 8, item 38), comprising a digital signature signed by the sender encrypted by the private key of the sender (Col. 3, lines 1-5); and

a private component (non-shipping information, advertising material, Col. 3, lines 47-57), comprising a digital signature signed by the sender (Col. 2, lines 60 – Col. 3, lines 5; Col. 3, lines 47-66; Col. 4, lines 1-14).

Critelli does not explicitly teach (1) a private component, encrypted by the public key of the receiver or (2) that the barcode further encodes information relating to the physical characteristics of the security envelope, wherein the physical characteristics of the security envelope include at least one of the date the security envelope was sealed, the size of the security envelope, or the weight of the security envelope.

As to (1), in a similar system dealing with encryption, Cantu teaches a public component that comprising a digital signature signed by the sender encrypted by the private key of the sender [0055-0061] and a private component comprising a digital signature signed by the sender encrypted by the public key of the receiver [0055-0061]. Cantu teaches specifically that a sender encrypts a message with the recipient's public key to "provide the recipient with assurance that the message is indeed intended for the recipient." Cantu also teaches encrypting the message with the sender's private key to "assure the recipient the

Art Unit: 2152

identity of the sender.” Cantu further discloses that such encryption techniques can be applied to barcodes [0101].

Thus, it would have obvious to one of ordinary skill in the art to incorporate Cantu’s encryption techniques into Critelli’s barcode system. In particular, it would have been obvious to incorporate Cantu’s teaching of utilizing both a recipient’s public key and a sender’s private key to encrypt a barcode and to provide assurances to both the recipient and sender that the message is secure.

As to (2), Jensen discloses a barcode further encodes information relating to the physical characteristics of the security envelope, wherein the information includes at least one of:

- a. the date the security envelope was sealed; or
- b. the size of the security envelope [column 3 «lines 7-13» | column 4 «lines 37-41» : barcodes encoded with the height and width of a package].

Jensen discloses that encoding the dimensions of an envelope into the barcode helps to provide an electronic record of the measurements of the envelope. Therefore, it would have been obvious to one of ordinary skill in the art to incorporate the functionality of encoding physical dimensions within a barcode into Critelli’s barcode system.

6> As to claims 2 and 11, Critelli and Cantu teach the public component and the private component each include a digital mail identification (Critelli, Col. 4, lines 55 – Col. 5, lines 10, Fig 8; Col. 6, lines 45-55, wherein the private identification is portions of the mailing the

Art Unit: 2152

sender wish to include or not include within the mail piece depending upon the target audience of the specific mailing);

the public mail identification is the barcode that identifies the public component information, i.e. barcode 36, Fig 2).

7> As to claims 3 and 12, Critelli and Cantu teaches the barcode further encodes return address information (Critelli, Col. 2, lines 35-50).

8> As to claims 6 and 15, Critelli and Cantu teaches the barcode further encodes stamp information (Critelli, Col. 2, lines 35-50).

9> As to claim 7, Critelli and Cantu teach the security envelope further comprises a physical authentication identification (Critelli, Fig 8, item 18) and wherein the barcode further comprises a digital representation of the physical authentication identification (Critelli, Fig 8, item 38).

10> As to claim 10, Critelli discloses a method for securing mail, comprising:
producing a digital mail identification that encodes physical identification information of a security envelope into a barcode in a two-dimensional symbology [Col. 4, lines 10-15 | Fig. 1, item 36 | Fig 8, item 38 | column 2 «lines 35-50» where : Critelli discloses

Art Unit: 2152

encoding physical information such as the date when the envelope was mailed (see Applicant's specification, pg. 9 «lines 1-2»), wherein the digital mail identification comprises:

a public component, the public component comprising a public digital mail identification and a digital signature signed by a sender and encrypted by the private key of the sender [column 2 «lines 35-50» | column 3 «lines 1-5» | see also rejection of claim 1]; and

a private component, the private component comprising a private digital mail identification and a digital signature signed by the sender and encrypted by the public key a receiver [column 2 «lines 35-50» | column 3 «lines 47-66» | column 4 «lines 1-14» | see also rejection of claim 1];

applying the digital mail identification to the security envelope [column 2 «lines 35-50»].

Critelli does not expressly disclose that the barcode further encodes information relating to the physical characteristics of the security envelope, wherein the physical characteristics of the security envelope include at least one of the date the security envelope was sealed, the size of the security envelope, or the weight of the security envelope.

Moore discloses a barcode further encodes information relating to the physical characteristics of the security envelope, wherein the information includes at least one of:

- c. the date the security envelope was sealed; or
- d. the size of the security envelope [column 3 «lines 7-13» | column 4 «lines 37-41»

: barcodes encoded with the height and width of a package].

Jensen discloses that encoding the dimensions of an envelope into the barcode helps to provide an electronic record of the measurements of the envelope. Therefore, it would have been obvious to one of ordinary skill in the art to incorporate the functionality of encoding physical dimensions within a barcode into Critelli's barcode system.

11> As to claim 23, it is rejected for the same reasons as rejection to claim 1, 10, 18 above.

Additionally, Critelli teaches at least one mobile computer comprising:

a bar code reader, a physical authentication identifier reader, computer capable of comparing information obtained from the bar code reader and the physical authentication identifier reader, a database capable of storing at least one public key and at least one private key, a display and a printer [Figure 4 | column 6 «lines 55-67»].

12> Claim 8, 9, 16 and 17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Critelli, Cantu and Moore, as applied to claim 1, further in view of Applicant Admitted Prior Art (hereinafter AAPA).

13> As per claim 8, Critelli and Cantu do not explicitly teach an optically clear epoxy with air bubbles suspended therein.

However, AAPA teaches the above sections in page 5 of specification. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Critelli, Cantu and AAPA because the teaching of AAPA to allow where the physical authentication identification comprises an optically clear epoxy with air bubbles

Art Unit: 2152

suspended therein would improve the security measures for Critelli and Cantu's system by encoding additional information using another type of security technique within the barcode.

14> As per claim 9, Critelli and Cantu do not explicitly teach the physical authentication identification comprises a cloth made from non-woven 40 micron diameter polymer fibers.

However, AAPA discloses the above section in page 5 of specification. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Critelli and Cantu and AAPA because the teaching of AAPA to allow where the physical authentication identification comprises a cloth made from non-woven 40 micron diameter polymer fibers would improve the security measures for Critelli and Cantu's system by encoding information using additional security technique within the barcode.

15> As per claims 16-17, claims 16-17 are rejected for the same reasons as rejection to claims 8-9 above respectively.

16> Claim 18, 19 and 24-27 are rejected under 35 U.S.C. 103(a) as being unpatentable over Critelli, Cantu, and Jensen, as applied to claim 1, further in view of Moore US 5,917,925.

17> As per claim 18, Critelli and Cantu do not explicitly teach:
measuring the physical identification information;
decoding the digital mail identification; and
comparing the measured physical identification information with the decoded digital mail identification.

However, Moore teaches the above section in the sample sections of Col. 8, lines 50-66 (“generating a unique pattern comprising an encoded input data entry stored on a mass storage device accessible by a CPU where the input data comprises...a unique mailpiece weight, and time and date information”), wherein the decoded information are compared with the pre-stored information in a database, which was measured and entered into the database at one point or another, the comparison takes place to identify the use of authentic indicia marks by unauthorized personnel, or identify the use of authorized indicia without proper fee payment or to identify improperly distributed mailpieces, or to obtain additional information on the inspected mail piece.

It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Critelli, Cantu and Jensen with Moore because Moore’s teaching allows measuring the physical identification information; decoding the digital mail identification; comparing the measured physical identification information with the decoded digital mail identification would improve the security measures for Critelli, Cantu and Jensen’s system by checking to see if the information received is the correct information pertaining to the user.

18> As per claim 19, Critelli as modified by Cantu, Jensen, and Moore teaches the method as in claim 18, wherein at least one of the steps of (1) measuring the physical identification information, and (2) decoding the digital mail identification is accomplished using an optical scanner (Critelli, Col. 4, lines 15-20).

19> As per claim 20, Critelli as modified by Cantu and Jensen does not explicitly teach the step of comparing the measured physical identification information with the decoded digital mail identification is accomplished using a mobile computer.

However, Moore teaches the above section in Col. 5, lines 1-10 and Col. 26, lines 37-54, where the mobile computer is the field reader. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Critelli, Cantu, and Jensen with Moore because Moore's teaching allows comparing the measured physical identification information with the decoded digital mail identification is accomplished using a mobile computer would improve the mobility for Critelli, Cantu, and Jensen's system by extending this type of operation into the field carried by company workers.

20> As per claim 21, Critelli as modified by Cantu and Jensen does not explicitly teach transmitting the measured physical identification information and the decoded digital mail identification to a wired computer network via a wireless medium.

However, Moore teaches the above section on sample section of Col. 26, lines 37-56, Col. 11, lines 5-20. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Critelli, Cantu, and Jensen with Moore because Moore's teaching allows transmitting of measured physical identification information and the decoded digital mail identification to a wired computer network via a wireless medium would improve the storage ability and mobility for Critelli, Cantu, and Jensen's system by keeping track of all the events occurring with the package scanning while in a distributed wireless environment.

21> As to claim 24, Critelli as modified by Cantu and Jensen does not expressly disclose two-dimensional symbology as PDF417. However, such a feature was well known in the art at the time of Applicant's invention. For example, Moore discloses two-dimensional symbology implemented as PDF417 [column 16 «lines 36-38»]. PDF417 is a well known 2-d symbology and therefore it would have been obvious to one of ordinary skill in the art to have implemented Critelli's bar-code system as PDF417.

22> As per claim 25 and 26, they are rejected for the same reason as rejection to claims 8 and 9 above respectively.

23> As per claim 27, Critelli as modified by Cantu and Jensen does not explicitly teach a wired computer network capable of communication with the at least one mobile computers via a wireless medium. However, Moore teaches a wired computer network capable of communication with the at least one mobile computers via a wireless medium (Col. 5, lines 1-15). Moore's system teaches of field readers reading information on the field and eventually interconnects with the wired system for information updates. It would have been obvious to one of ordinary skill in this art at the time of invention was made to combine the teaching of Critelli, Cantu, and Jensen with Moore because Moore's teaching allows a wired computer network capable of communication with the at least one mobile computers via a wireless medium would improve mobility for Critelli, Cantu, and Jensen's system by keeping track of

Art Unit: 2152

all the events occurring with the package scanning while in a distributed wireless environment.

24> Claims 22 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Critelli, Cantu, Jensen, Moore and in further view of 'Official Notice'.

25> As per claim 22, Critelli and Moore do not explicitly teach the method as in claim 21, wherein the wired computer network is connected to the Internet and the transmitting the identification data to a wired computer network via a wireless medium uses a TCP/IP protocol. "Official Notice" is taken that the concept and advantages of providing for TCP/IP in a wireless network is well known and expected in the art. It would have been obvious to one of ordinary skill in the art to include wireless TCP/IP with Lewis and Moore because it would provide for a robust connection oriented transfer medium.

26> As per claim 28, claim 28 is rejected for the same reasons as rejection to claim 22 above.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

Art Unit: 2152

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DOHM CHANKONG whose telephone number is (571)272-3942. The examiner can normally be reached on Monday-Friday [8:30 AM to 4:30 PM].

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Bunjob Jaroenchonwanit can be reached on 571.272.3913. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2152

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/D. C./
Examiner, Art Unit 2152

/Bunjod Jaroenchonwanit/
Supervisory Patent Examiner, Art Unit 2152